

# TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104  
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## PRODUCT EVALUATION

WIN-1662

Effective Date: November 1, 2012

Reevaluation Date: **April 2016**

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

**Model 9020 TB Aluminum Fixed Windows, Large Missile Impact Rated, Impact Resistant,**  
manufactured by

**WinDoor Incorporated**  
**7500 Amsterdam Drive**  
**Orlando, Florida 32832**  
**Telephone: (407) 481-8400**  
**www.windoorinc.com**

### General Description:

System	Description	Label Rating	Design Pressure Rating (psf)
1	Model 9020 TB Aluminum Impact Fixed; (O)	AW-PG100 60 x 120; ASTM E 1886-05/E1996-09 Missile Level D	± 100
2	Model 9020 TB Aluminum Impact Fixed; (O)	AW-PG90 60 x 120; ASTM E 1886-05/E1996-09 Missile Level D	± 90
3	Model 9020 TB Aluminum Impact Fixed Combo Assembly (Mull); (O/O)	AW-PG100 60 x 120; ASTM E 1886-05/E1996-09 Missile Level D	+100, -120
4	Model 9020 TB Aluminum Impact Fixed; (O)	AW-PG110 96 x 72; ASTM E 1886-05/E1996-09 Missile Level D	± 110
5	Model 9020 TB Aluminum Impact Fixed; (O)	AW-PG100 96 x 72; ASTM E 1886-05/E1996-09 Missile Level D	± 100
6	Model 9020 TB Aluminum Impact Fixed Combo Assembly (Mull); (O/O/O)	AW-PG85 144 x 72; ASTM E 1886-05/E1996-09 Missile Level D	± 85

**Product Dimensions:**

System	Overall Size
1	60" x 120"
2	60" x 120"
3	60" x 120"
4	96" x 72"
5	96" x 72"
6	144" x 72"

**Product Identification (Certification Agency Label on Window):**

System		
1	Certification Agency	Keystone
	Manufacturer's Name or Code Name	WinDoor, Inc. CAR 167-504; CAR 167-754
	Product Name	Model 9020 TB Aluminum Impact Fixed
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08; ASTM E 1886-05/E1996-09
2	Certification Agency	Keystone
	Manufacturer's Name or Code Name	WinDoor, Inc. CAR 167-505; CAR 167-755
	Product Name	Model 9020 TB Aluminum Impact Fixed
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08; ASTM E 1886-05/E1996-09
3	Certification Agency	Keystone
	Manufacturer's Name or Code Name	WinDoor, Inc. CAR 167-506; CAR 167-756
	Product Name	Model 9020 TB Aluminum Impact Fixed Combo Assembly (Mull)
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08; ASTM E 1886-05/E1996-09
4	Certification Agency	Keystone
	Manufacturer's Name or Code Name	WinDoor, Inc. CAR 167-507; CAR 167-757
	Product Name	Model 9020 TB Aluminum Impact Fixed
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08; ASTM E 1886-05/E1996-09
5	Certification Agency	Keystone
	Manufacturer's Name or Code Name	WinDoor, Inc. CAR 167-508; CAR 167-758
	Product Name	Model 9020 TB Aluminum Impact Fixed
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08; ASTM E 1886-05/E1996-09
6	Certification Agency	Keystone
	Manufacturer's Name or Code Name	WinDoor, Inc. CAR 167-514; CAR 167-764
	Product Name	Model 9020 TB Aluminum Impact Fixed Combo Assembly (Mull)
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08; ASTM E 1886-05/E1996-09

**Impact Resistance:**

Impact Resistant	Requirement
Yes	These products satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the <b>Inland I</b> and <b>Seaward zone</b> . The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

**Installation:**

System		
1-6	Type of Installation	Replacement – Through Frame
	Wall Framing	Wood (Spruce-Pine-Fir); Concrete (minimum compressive strength of 3,192 psi); Masonry (ASTM C-90); Steel (18 gauge, 33 ksi); or Aluminum ( $\frac{1}{8}$ " thick 6063-T5).
	Fasteners	Wood: No. 12 wood screw; Concrete: $\frac{1}{4}$ " diameter Tapcons; Metal #12 SMS or self drilling screws
	Fastener Location/Spacing	The windows shall be installed in strict accordance with this product evaluation report and WinDoor Incorporated drawings 08-01646, sheets 1 – 7 of 7, Revision A, dated June 25, 2012, signed and sealed by Luis R. Lomas, P.E. on September 12, 2012.
	Fastener Penetration	Wood: Minimum of $1\frac{5}{8}$ inches into the wall framing; Concrete: Minimum of $1\frac{1}{4}$ inches into the wall framing; Metal: Minimum 3 threads beyond structure interior wall.

**Note:** The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.